GOL'DEL'MAN, M.G.; KHILEVSKIY, K.V.

Materials on the clinical and physiological basis for using physical agents in the compound treatment of hypertension. Vop.kur.fizioter. i lech.fiz.kul't. 21 no.4:32-38 O-D '56. (MLRA 9:12)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta fizicheskikh metodov lecheniya (nauchnyy rukovoditel' - prof. D.G.Shefer, dir. - kandidat meditsinskikh nauk N.V.Orlov)
(HYPERTENSION) (PHYSICAL THERAPY)

KHILEVSKIY, K.V.

SHEFER, D.G.; KHILEVSKIY, K.V.; BELUGIN, A.A.

Mechanism of the development and clinical role of ultraviolet erythema. Vop.kur.fizioter. i lech.fiz.kul't. 22 no.6:15-21 N-D '57. (MIRA 11:2)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii (dir. - kandidat meditsinskikh nauk N.V.Orlov) i iz Sverdlovskogo gosudarstvennogo meditsinskogo instituta (dir. prof. A.F.Zverev)
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT) (SKIN)

ORLOV, N.V., kand.med.nauk; KHILEVSKIY, K.V., kand.med.nauk; SOVETOV, V.

"General physical therapy" by E.I.Pasynkov, L.R.Rubin. Reviewed by N.V.Orlov, K.V.Khilevskii, V.Sovetov. Vop.kur.fizioter. i lech.fiz.kul't. 23 no.2:174-178 Mr-Ap '58. (MIRA 11:6)
(PHYSICAL THERAPY)
(PASYNKOV, E.I.) (RUBIN, L.R.)

MAGAZANYUK, S.S., KHILEVSKIY, K.V.

Complications in treating diseases of the peripheral nervous system with galvanotherapy. Vop.kur.fizioter.i lech.fiz.kul't 23 no.4: 367-368 Jl-Ag '58 (MIRA 11:8)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta fizicheskikh metodov lecheniya (dir. - kand.med.nauk N.V. Orlov, nauchnyy rukovoditel' prof. D.G. Shefer).
(ELECTROTHERAPEUTICS)
(NERVOUS SYSTEM--DISEASES)

KHILEVSKIY, K.V.

Effect of sleep induced by various physical agents on the effectiveness of general physical therapy for hypertensives. Vop.kur. fizioter. i lech fiz.kul't. 23 no.6:491-497 N-D '58 (MIRA 11:12)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta fizicheskikh lecheniya (dir. N.V. Orlov; nauch. rukovoditel' prof. D.G. Shefer).
(SLEEP--THERAPEUTIC USE)
(HYPERTENSION)

ACCESSION NR: AT4025297 S/0000/63/000/000/0086/0094

AUTHOR: Khilil', V. V.

TITLE: Passage of phase modulated oscillations through linear selective circuits, and accuracy of high speed electronic phase meters

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Moscow, Gosatomizdat, 1963, 86-94

TOPIC TAGS: phase shifter, microwave plasma, electron density, amplification, phase shift

ABSTRACT: The sensitivity of the received signal to the amplification channel and other selective circuits in a phase shifter used to measure fast variations of electron density in a plasma is considered. In view of the complexity of the problem in general form, an approximate method is used in which the transfer function is expanded in

Card 1/2

ACCESSION NR: AT4025297

powers of the deviation from the frequency of the microwave generator. It is assumed that a pulse-modulated signal passes through a selective channel made up of individual resonant circuits which are detuned relative to the central frequency. The best detunings and attenuations of the individual tank circuits are determined in such a way that the selective channel as a whole be optimal from the point of view of minimum signal distortion. It is shown that the distortion is small for any depth of modulation if the bandwidth is selected sufficiently large and measures are adopted to symmetrize the characteristics of the channel. The relation between the bandwidth of the selective channel and the width of the spectrum of the modulating function is determined under some simplifying assumptions for several special cases. Orig. art. has: 18 formulas.

ASSOCIATION: None

SUBMITTED: 19Oct63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: EC, ME NR REF SOV: 002 OTHER: 003

Card 2/2

L 38195-66 EWT(1) GD

ACC NR: AT6022230 SOURCE CODE: UR/0000/66/000/000/0019/0027

AUTHOR: Khilil', V. V.

29
B+1

ORG: none

TITLE: Homodyne frequency conversion and FM in the SHF oscillator used in high-speed electron phase meters

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu Radio. 22d, 1966 Sektsiya radioizmereniy. Doklady. Moscow, 1966, 19-27

TOPIC TAGS: phase meter, SHF oscillator, frequency conversion

ABSTRACT: In the millimeter band, the homodyne conversion with FM is advantageous because most SHF oscillators permit quick frequency variation in a wide range. A block diagram of the corresponding phase meter (see Fig. 1) includes a reference oscillator RO which produces a special-shape voltage for modulating the output of the oscillator O; frequency-modulated SHF oscillations are fed into two channels: (a) an electrically short reference channel RCh and (b) an electrically long

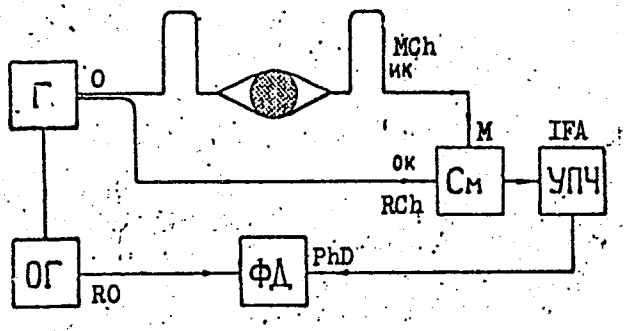


Fig. 1.

Card 1/2

L 38195-66

ACC NR: AT6022230

measuring channel MCh which introduces a delay required for the homodyne conversion. The known phase is measured by an indicator at the output of the phase detector PhD, the latter being fed by an IF amplifier and by RO. Formulas describing the optimal conditions of frequency conversion are developed. An experimental model of the above phase meter designed with an 8-mm wavelength klystron was tested; the modulating voltage was obtained by combining the first and the second harmonics of FM; the optimal conditions were ensured by controlling the amplitude and phase of the second harmonic. The experimental modulating-voltage shape is in good agreement with the theoretical. Orig. art. has: 4 figures and 23 formulas. [03]

SUB CODE: 09 / SUBM DATE: 19Mar66 / ORIG REF: 004 / OTH REF: 003/ ATD PRESS: 5045

Card 2/2 JS

L 38268-66 EWT(1)/EEC(k)-2 GD

ACC NR: AT6022231 SOURCE CODE: UR/0000/66/000/000/0027/0031

AUTHOR: Khilil', V. V.

ORG: none

TITLE: Measuring small phase angles by the homodyne method of frequency conversion in the SHF band

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio, 22d, 1966. Sektsiya radioizmeriniy. Doklady. Moscow, 1966, 27-31

TOPIC TAGS: phase meter, SHF oscillator, frequency conversion, gas discharge plasma

ABSTRACT: The principle of operation and the block diagram of a new homodyne-frequency-conversion SHF phase meter are given (see AT6022230). The new phase meter with a frequency-controlled (8-mm wavelength) klystron oscillator and a modulation frequency of 500 kc was used for investigating gas-discharge plasma processes. All SHF-channel elements were built from standard 3.4 x 7.2-mm waveguide. Group delay time, 5.6×10^{-8} sec (2.8% of the modulating-wave period); maximum gain, 50000; amplifier passband, 215 kc (resolution, 10 μsec). The phase meter was intended for measuring phase angles about 10°; spurious modulation was reduced by using the reference line and the measuring channel of equal lengths. It is claimed that the phase meter has good noise rejection and permits phase-shift measurements even under strong-noise conditions which prevail in high-temperature-plasma outfits. Orig. art. has: 1 figure and 7 formulas. [03]

SUB CODE: 09 / SUBM DATE: 19Mar66 / ORIG REF: 001/ ATD PRESS: 5046

Card 1/1

ARONOV, I., kand. tekhn. nauk (Kiyev); KHILINSKAYA, L., inzh. (Kiyev); YASKE, M., inzh. (Kiyev)

Using the heat of flue gases. Zhil.-kom. khoz. 12 no.5:31 My '62. (MIRA 15:10)

(Waste heat) (Flue gases)

ARONOV, I.Z.; KHILINSKAYA, L.G.; KISELEV, M.Ye.; YASKE, M.F.

Improving the utilization of natural gas in boiler rooms.
Prom.energ. 16 no.9:32-33 S '61. (MIRA 14:8)
(Gas as fuel)

SOLLOGUB, V.B.; CHEKUNOV, A.V.; KHILINSKIY, L.A.; GARKALENKO, I.A.

Results of experimental seismic studies of the internal structure of the crystalline basement in the northern part of the Krivoy Rog Basin. Geofiz.sbor. no.1:24-31 '62. (MIRA 16:3)

1. Institut geofiziki AN UkrSSR.
(Krivoy Rog Basin--Seismic prospecting)
(Krivoy Rog Basin--Geology, Structural)

SOLLOGUB, V.B.; LOSSOVSKIY, Ye.K.; KHILINSKIY, L.A.; GORBENKO, V.S.; SOKOLOV, B.N.; NIKIFORUK, B.S.

Use of high-frequency seismic prospecting for dividing metamorphic rock complex in the Belozerka iron-ore deposit. Geofiz.sbor. no.2:46-61 '62. (MIRA 16:3)

1. Institut geofiziki AN UkrSSR.
(Belozerka region (Zaporozh'ye Province)—Seismic prospecting)
(Belozerka region (Zaporozh'ye Province)—Crystalline and metamorphic)

SOLLOGUB, V.B.; CHEKUNOV, A.V.; KALYUZHNAYA, L.T.; KHILINSKIY, L.A.; KHARECHKO, G.Ye.

Internal structure of the crystalline basement in the southwestern part of the Korosten' pluton according to seismic data. Geofiz. sbor. no. 5:122-130 '63. (MIRA 17:5)

1. Institut geofiziki AN Ukr SSR.

SOLLOGUB, V.B.; CHEKUNOV, A.V.; KALYUZHNAYA, L.T.; KHILINSKIY, L.A.

Deep-seated structure of Korosten' pluton according to seismic data. Dokl. AN SSSR 152 no.5:1215-1217 O '63. (MIRA 16:12)

1. Institut geofiziki AN UkrSSR. Predstavleno akademikom V.S. Sobolevym.

SOLLOGUB, V.B.; CHEKUNOV, A.V.; PAVLENKOVA, N.I.; GARKALENKO, I.A.; KHILINSKIY, L.A.; SHPORT, L.P.

Crustal structure of the Crimean plain and Sivash region according to geophysical data. Sov. geol. 7 no.8:44-56 Ag '64. (MIRA 17:10)

1. AN UkrSSR.

SOLLOGUB, V.B.; CHEKUNOV, A.V.; PAVLENKOVA, N.I.; KHILINSKIY, L.A.

Nature of the Novotsaritsynskaya gravity anomaly in the Crimean plain according to seismic studies. Geofiz. sbor. no.8:3-12 '64. (MIRA 18:6)

1. Institut geofiziki AN UkrSSR.

SOLLOGUB, V.B., doktor geol.-min.nauk; CHEKUNOV, A.V.; KALYUZHNAYA, L.T.; KHILINSKIY, L.A.

Structure of the upper part of the crystalline crust in the Obruch synecline region based on seismic data. Geofiz.sbor. no.1:18-26 '65. (MIRA 18:12)

1. Institut geofiziki AN UkrSSR. Submitted June 19, 1964.

KHILINSKIY, V.M.

Quality is of utmost importance. Vest. sviazi 23 no.9:31 S '63. (MIRA 16:10)

1. Predsedatel' gruppy sodeystviya organam partiyno-gosudarstvennogo kontrolya na Kiyevskom tsentral'nom telegrafe.

KHILINSKIY, V.M.

Use all means to eliminate shortcomings. Vest. sviazi 24 no.9:24 S '64. (MIRA 17:11)

1. Predsedatel' gruppy sodeystviya partiyno-gosudarstvennomu kontrolyu pri Kiyevskom tsentral'nom telegrafe.

KHIL'KEVICH

COUNTRY : USSR
CATEGORY : Cultivated Plants. Fruits. Berries. Nuts. Tea.

ABS. JOUR.: Ref Zhur-Biologiya, No. 5, 1959, No. 20487

Author : Khil'kevich, M.
INST. : Novo-Dzhankouskiy Sovkhoz, Crimea
TITLE : Accelerating the Training of Grape Vines.

ORIG. PUB.: Vinogradarstvo i sadovodstvo Kryma, 1958, No. 3, 11-15

ABSTRACT : A production trial of methods of speeding up the traning of the vines at Novo-Dzhankoyskiy Sovkhoz (in the Crimea) has demonstrated that acceleration of training by the side-shoot method and by bending the vines provides for young grapevines setting about fruiting in the third year of vegetation with a productivity of 30-35 cwt/ha. Both methods produced identical yields and quality. In association with the fact that bending the vines can be

CARD : 1/2

KHILIL', V. V.

21(0) PHASE I BOOK EXPLOITATION SOV/2081

International Conference on the Peaceful Uses of Atomic Energy, 2d., Geneva, 1958

Doklady sovetskikh uchenykh; yadernaya fizika (Reports of Soviet Scientists; Nuclear Physics) Moscow, Atomizdat, 1959. 552 p. (Series: Its: Trudy, Vol. 1) 8,000 copies printed.

Eds. (Title page): A.I. Alikhanov, Academician; V.I. Veksler, Academician; and N.A. Vlasov, Candidate of Physical and Mathematical Sciences; Ed. of this volume: S.I. Brosdov and B.P. Zaretskiy, Candidates of Physical and Mathematical Sciences; Ed. (Inside book): G.L. Smolyan; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 43 papers presented by Soviet Scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1958.

COVERAGE: It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 26 papers on nuclear physics, including problems of particle acceleration and of cosmic ray physics. The first paper by L.A. Artsimovich presents a review of Soviet work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field. papers in Part II deal in detail with various problems in nuclear physics, such as the fission of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and rockets, described in a paper by S.N. Vernov. The Russian-language edition of the proceedings of the conference is published in 16 volumes. The first 6 volumes contain all the papers presented by Soviet scientists as follows: Volume (1), Yadernaya fizika (Nuclear Physics); Volume (2), Yadernyye reaktory i yadernaya energetika (Nuclear Reactor and Nuclear Power); Volume (3), Yadernoye goryacheye metally (Nuclear Fuel and Reactor Metals), Volume (4), Khimiya radioelementov i radiatsionnykh prevrashcheniy (Chemistry of Radioelements and of Radiation Transformations); Volume 5, Radiobiologiya i radiatsionnaya meditsina (Radiobiology and Radiation Medicine); Volume (6) Polucheniye i primeneniye isotopov (Production and Use of Isotopes). The other 10 volumes contain selected papers presented at the Conference by non-Soviet scientists. In the present volume discrepancies between the English and Russian language) edition of the proceedings have been noted in three articles where the texts are not identical; viz; Andrianov, et al, "High Current Pulsed Discharge"; Akhiyezer, et al, "High Frequency Plasma Oscillation"; and Bogolyubov, "Investigations of the Many-body Problem". The serial numbers of reports 2502 and 2504 are reversed in the English edition. Report 2211, by Sinelnikov, et al, is numbered 2536 in the English edition.

TABLE OF CONTENTS:

Reports of Soviet Scientists; Nuclear (Cont.) SOV/2081

Card 5/13

BONDARENKO, S.A.; DONDAREVSKIY, S.N.; KHILIN, M.S.; KATS, Ye.A. (g. Kuybyshev); KRIVOV, N.V. (Stalinskaya oblast'); MULTANOVSKIY, V.V.

Teachers' letters on a physics textbook. Fiz. v shkole 17 no.3: 76-77 My-Je '57. (MLRA 10:6)

1. 5-ya srednyaya shkola, g. Kamensk-Shakhtinskiy (for Bondarenko). 2.10ya srednyaya shkola, st. Kiyev (for Bondarevskiy). 3. 1-ya srednyaya shkola, Belgorodskyaya oblast', g. Gubkin (for Khilin). 4.1-ya Belokholunitskaya srednyaya shkola Kirovskoy oblasti (for Multanovskiy).

(Physics--Textbooks)

KHILINSKIY, A.G.

These train delays could have been avoided. Elek. i tepl. tiaga 2 no.2:40-41 F '58. (MIRA 11:4)

1. Starshiy mashinist elektrovoza depo Moskovka, Omskaya doroga.
(Electric locomotives--Maintenance and repair)

KHILINSKIY, A.G., mashinist

Reliable circuit for the protection of contactors. Elek. i tepl. tiage 4 no. 9:38-39 S '60. (MIRA 13:12)

1. Depo Moskovka Omskoy dorogi.
(Electric locomotives) (Electric contactors)

KHIL'KENBEYMER, F.

[Pruning and grafting fruit trees and berry bushes] Obreska i privivka plodovykh derev'ev i iagodnykh kustarnikov. Moskva, M-vo sel'skogo khoz.RSFSR, 1959. 139 p. (MIRA 13:8)
(Grafting) (Pruning)

AKULINICHEV, I.T.; ANDREYEV, L.F.; BAYEVSKIY, R.M.; BAYKOV, A.Ye.: BUYLOV, G.G. GAZENKO, O.G.; GRYUNTAL', R.G.; ZAZYKIN, K.P.; KLIMENTOV, Yu.F.; MAKSIMOV, D.G.; MERKUSHKIN, Yu.G.; MONAKHOV, A.V.; PETROV, A.P.; RYABCHENKOV, A.D.; SAZONOV, N.P. ; UTYAMYSHEV, R.I.; FREYDEL', V.R.; KHIL'KEVICH, B.G.; SHADRINTSEV, I.S.; SHEVANDINA, S.B.; ESAULOV, N.G.; YAZDOVSKIY, V.I.

Method and means of medical and biological studies in a space flight. Probl. kosm. biol. 3:130-144 '64. (MIRA 17:6)

KHIDKEVICH, E. K.

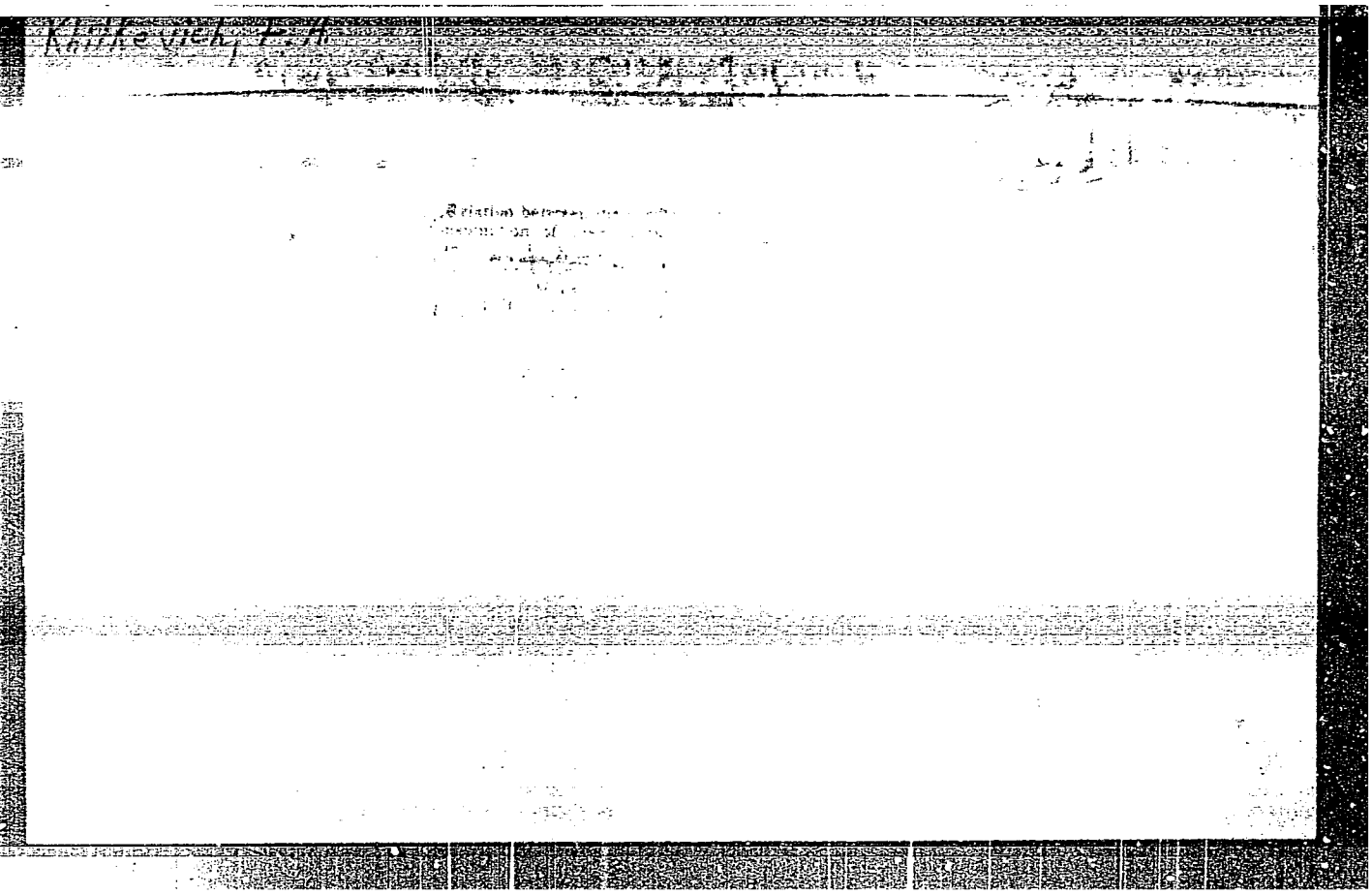
Hil'kevič, E. K. From the history of the dissemination and development of the ideas of M[illegible]

[illegible] review,

KHIL'KEVICH, E.K.

KHIL'KEVICH, E.K. (Tyumen')

M.V. Ostrogradskii's comment on the first axiom in geometry.
Vop.ist.est. i tekh. no.5:162-164 '57. (MIRA 11:2)
(Geometry, Plane)
(Ostrogradskii, M.V.)



Il'bil'kevich, F.A.

18

Ways of Improving Blast-Furnace Operation indices F. A.
Kil'kevich. O. V.

Blast furnace practice ...
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KHLEVICH, F. A.

S. V. Basilevich, and B. de Lazarev (Met. Finns. ...
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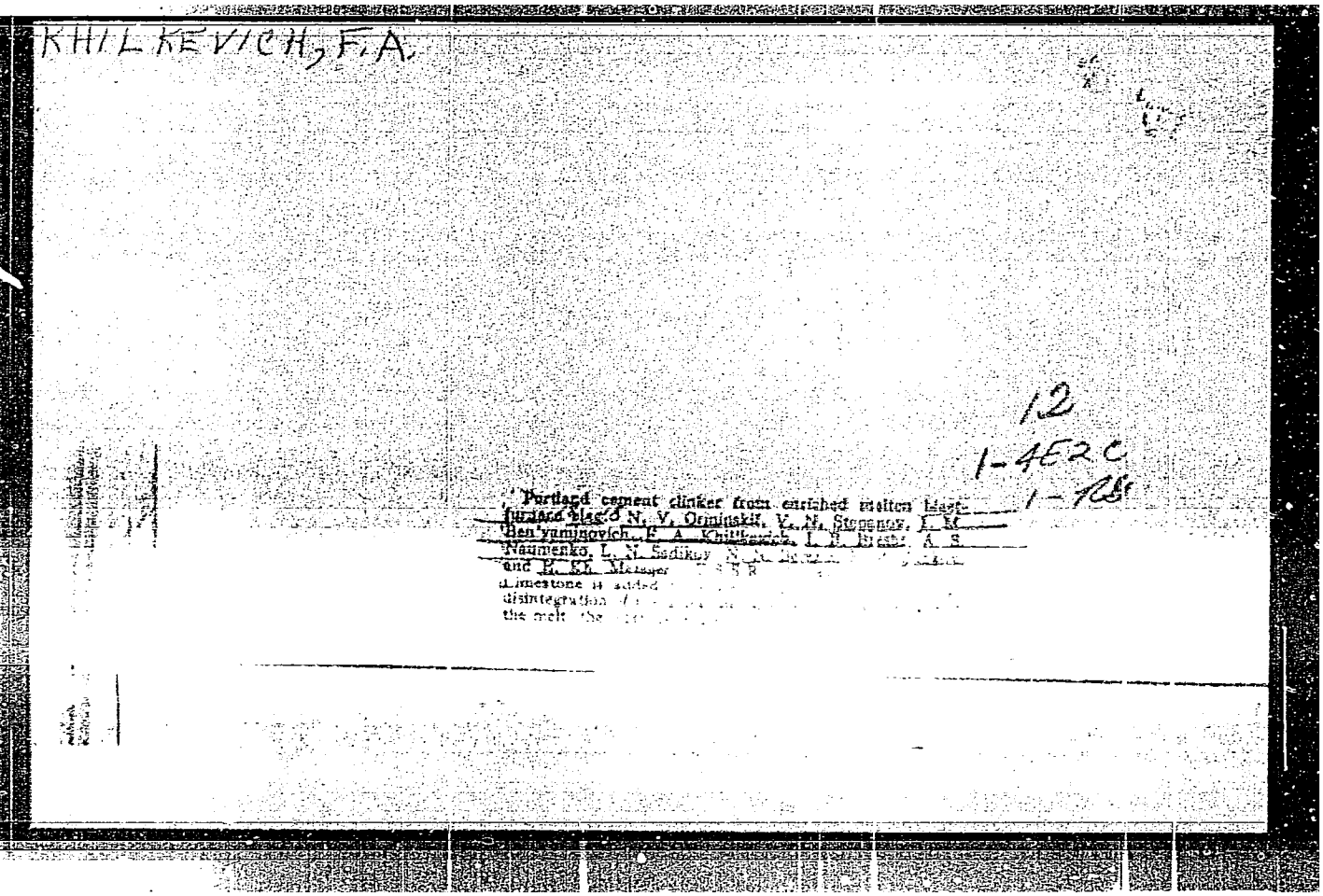

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010020-7"

AUTHORS: Khil'kevich, F.A., Lazarev, B.L. and Bazilevich, S.V.

TITLE: Blast furnace operation with oxygenated blast. (Rabota domennykh pechey na dut'ye, obogashchennom kislorodom).

PERIODICAL: "Metallurg" (Metallurgist), 1957, No.6, pp.3-7 (USSR).

ABSTRACT: The use of oxygenated blast for producing steel-making pig iron and ferromanganese in blast furnaces 1386 and 1100 m^3 in useful volume and operating with medium top pressure, respectively, is described. The experiments were carried out at the Nizhne-Tagil'sk metallurgical combine in 1956-57 jointly with the Central Research Institute of Ferrous Metallurgy and were reported at the recent All-Union Blast-Furnace Conference. The pig iron (0.6% Si, 1% Mn, 0.04% S, 0.2% P) was melted from a mixture of fluxed and unfluxed sinters and magnetite ores. The reducibility and strength of the burden were low. A 90-day trial period with ordinary blast was followed by a total of 6 days with oxygenation to 22.19% O_2, 14 days at 23.3% O_2 and 8 at 24% O_2. Blast moisture was kept constant at 20 g/m^3, blast volume was reduced to keep the time rate of gas production constant and blast temperature was increased. Throat CO_2-content traverses show that good distribution was maintained, and the operating characteristics of the furnace (coke rate,

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010020-7

Blast Furnace operation with oxygenated blast. (Cont.)

productivity, CO/CO_2 ratio and calorific value of top gas, coke-burning rate) were better in the oxygenated-blast periods, but the practice is complicated by the deterioration in raw material quality which occurred in part of the 24% period; without this deterioration the productivity was 2063 tons per day compared with 1915 without oxygenation. Because of high oxygen costs at the works direct production costs of the iron were slightly higher with oxygen-enriched blast, but this was offset by improvement in various factors. The manganese ore from which ferromanganese was melted contained much fines and high production rates were difficult to achieve. Oxygenation to 24.3% O_2 for a month gave a productivity increase of 11.2% (from 399.7 to 447.0 tons/day). A relatively acid($(CaO + MgO)/SiO_2$ = 1.10 to 1.15) slag was used and blast temperatures were about 1000 C. In general the results are considered to show that it is advantageous to use oxygenated blast for operation on prepared charges.

ASSOCIATION: Nizhne-Tagil'sk Metallurgical Combine. (Nizhne-Tagil'skiy Metallurgicheskiy Kombinat).

AVAILABLE:

KHIL'KEVICH, F.A.

133-7-2/28

AUTHOR: Zakharov, A.F., Khil'kevich, F.A., Bazilevich, S.V. and Lazarev, B.L., Engineers.

TITLE: Smelting of Ferro-manganese in a Large Blast Furnace (Vyplavka ferromargantsa v bol'shoy domennoy pechi)

PERIODICAL: Stal', 1957, No.7, pp. 580 - 584 (USSR)

ABSTRACT: In 1956, the smelting of ferro-manganese was carried out in a large furnace (No.2 furnace Nizhne Tagil'skiy Works) (1 100 m^3) with high top pressure (0.5 atm.) and oxygen-enriched blast (up to 24.5%). The preparation of the furnace for the transfer from foundry iron to ferro-manganese production, characteristic of raw meterials, operational practice and the results obtained are described. The profile of the furnace and the distribution of CO_2 in the top gas along the throat diameter are shown in Figs. 1 and 2, respectively. Material and heat balances are given in Tables 1 and 2, respectively. The comparison of main indices of heat balances of smelting ferro-manganese in three different works is given in Table 3. In addition, the distribution of temperatures and changes in the gas composition along the height of the furnace stack (Fig.3) and the composition of gas in the combustion zone (Fig.4) were studied. It is concluded that on smelting

Card 1/2

KHIL'KEVICH, F.A.

133-8-1/28

AUTHORS: Bardin, I.P.(Academician), Trekalo, S.K. (Cand.Tech.Sci.), Zakharov, A.F. (Eng.), Khil'kevich, F.A. (Eng.), and Lazarev, B.L. (Eng.)

TITLE: Smelting of basic pig iron with oxygen enriched blast. (Vyplavka peredel'nogo chuguna na dut'ye, obogashchennom kislorodom).

PERIODICAL: "Stal'" (Steel), No.8, 1957, pp.673-684 (USSR).

ABSTRACT: The influence of oxygen enriched blast on the operation of a large blast furnace with a normal profile operating on a prepared burden was investigated. The profile of the furnace is given in Fig.1. The preparation of burden materials is described, their chemical composition during the individual operating periods and physical properties of coke used are given in Tables 1 and 2 respectively. The mean composition of the burden, furnace lining (Fig.2), the composition of pig and top pressure during the individual operating periods was practically the same.

Card 1/5 The following operating periods are considered:

Smelting of basic pig iron with oxygen enriched blast. (Cont)

Period	Date	Oxygen content in blast, %
I	1.4-30.6	21.0
II	25.7-30.7	22.19
III	31.7-10.8	23.30
	20. -22.8	
IV	11.8-19.8	24. 0
V	1.9-28.9	21. 0

The operating results obtained during the individual periods are given in Table 3. Operating conditions during the last period V deteriorated due to the formation of a scaffold and deterioration in the state of charging equipment, therefore this period was excluded from further comparison. Daily variations of basic operating factors during the smelting of iron with normal and oxygen enriched blast are shown in Figs.3 and 4 respectively. The influence of oxygen enrichment on the amounts of blast and gas made, CO content in gas and gas made to blast ratio is shown in Fig.5. The comparison of the intensification of the smelting process when using oxygen enrichment under conditions of (a) constant amount of blast and (b) constant amount of gas made per unit time is shown in Fig.6. Material balances

Card 2/5

Smelting of basic pig iron with oxygen enriched blast.

(Cont.)

of the smelting process during the individual periods operating factors and heat balances for the same periods are given in Tables 4, 5 and 6 respectively. The distribution of CO_2 content in the top gas along the throat diameter during the individual operating periods is shown in Fig.7. Variations in the composition and temperature of gas at various furnace levels during the individual operating periods are shown in Figs.8 and 9. Methods used for the determination of the above data are not given. The comparison of cost of production per ton of pig with normal (A) and oxygen enriched (B) blast is given in Table 7. It is concluded that: 1) operation of the furnace with oxygen enriched blast was stable without increasing moisture content of blast. The temperature of the blast was increased by 35-45 C in comparison with the operation on normal blast; 2) oxygen enrichment permitted intensifying furnace driving within the limits of retaining the amount of gas produced per unit of time on the same level as in normal operation; 3) the distribution of the gas stream across the furnace during operation with enriched blast remained normal which was the main factor contributing to

Card 3/5

KHIL'KEVICH, F.A.

133-9-1/23

AUTHOR: Khil'kevich, F.A. and Bazilevich, S.V., Engineers.

TITLE: An Investigation of the Service Life of Carbon Lining in the Blast Furnace Stack. (Issledovaniye raboty uglerodistoy futerovki shakhty domennoy pechi)

PERIODICAL: Stal', 1957, No.9, pp. 769 - 771 (USSR)

ABSTRACT: The service life of the chamotte lining of blast furnace stack on the above works was lately about 2 - 2.5 years. Moreover, the presence of zinc in the burden increased the erosion of lining and occasionally caused bursting of the shell. In October, 1956, the bottom 7.2 m of the stack of the No.3 furnace was relined with carbon blocks (Fig.1). For the cooling of the carbon lining three rows of plate-coolers placed close up to the external surface of the carbon blocks were used. The seams between the blocks were filled with paste made from foundry coke (0 - 0.5 mm fraction) - 50%, pitch - 22.5% and anthracene oil - 27.5%. The lentil was smoothed with a chamotte-cement tie piece on to which two rows of chamotte bricks were placed followed by a row of lentil coolers on to which the first row of carbon blocks was placed. A number of thermocouples in sheaths was placed into holes drilled in the carbon blocks and connected to recording galvanometers. The temperature of the lining during the heating-up period is shown in Fig.2. Calculated temperature

Card1/3

distribution in the carbon lining is shown in Fig.3. Indications of thermocouples inserted 340 mm into the carbon lining remained during 5 months of the furnace operation on the same level as after blowing in (Fig.4). A high sensitivity of thermocouples (placed near to the hot surface of the lining) to changes in the gas flow in the stack can be used for the control of furnace operation. In order to evaluate the gas permeability of carbon lining measurement of gas pressures on hot and cold surfaces of the lining was carried out. Pressure in the furnace on level 5 (6 100 mm from the lentil) was on average 1.25 atm. gage, and the gas pressure on the cold side of the lining rose and after 9 days reached a maximum (pressure drop 0.59 atm.). Then pressure drop began to increase and stabilised at 1.23 atm., which was apparently due to an intense deposition of zinc in seams. After 30 days of operation when changing thermocouples a thick layer of metallic zinc on the walls of the thermocouple hole was noticed. The gas composition on the hot and cold sides of the carbon lining was practically identical. On the 32nd day, the shell cracked. It was welded but cracking continued due to an intense deposition of zinc in the lining. To prevent the deposition of zinc in the lining itself the authors proposed a

Card2/3

in the editorial note of not much use for preventing the cracking of the shell. In conclusion it is stated that carbon-lining is more stable than chmotte lining and therefore its thickness can

KHIL'KEVICH, G.E.

Mine transfer cars. Biul.tekh.-ekon.inform. no.4:63-65 '59.
(MIRA 12:7)

(Mine railroads--Cars)

MIKHALIN, G.I.; KHIL'KEVICH, G.Ya.

Diesel manufacture on a new level. Energetik 13 no.11:37 N '65. (MIRA 18:11)

KHIL'KEVICH, G.Ya., insh.

Use of chromium plating to strengthen new and recondition worn-out plunger pairs. Trudy TSNII MPS no. 202:54-70 '60.
(MIRA 13:12)

(Chromium plating) (Locomotives--Cylinders)

KHIL'KEVICH, N. I.

Priusadebnoe vinogradarstvo [Viniculture on individual plots]. Simferopol', Krymizdat, 1952. 140 p.

SO: Monthly List of Russian Accessions, Vol 6 No 6 September 1953

KHIL'KEVICH, Nikolay Ivanovich

[Possibilities of extending the growing of grapes without winter covering in the Crimea] Vozmozhnosti rasshireniia granita neukryvnogo vinogradarstva v Krymskoi oblasti. Simferopol', Krym, 1964. 35 p.
(MIRA 19:1)

KHIL'KEVICH, Nikolay Ivanovich

[Viticulture on individual plots] Priusadebnoe vinogradstvo. [Izd.2.] Simferopol', Krymizdat, 1956. 197 p. (MLRA 10:3)
(Ukraine--Viticulture)

1. KHIL'KEVICH, N. M., BOYKO, D. K.

2. USSR (600)

4. Milking

7. Practice of stripping cows. Dost sel'khoz No 12 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KHIL'KEVICH, N. M., Cand Vet Sci -- (diss) "Ovarioectomy in Ewes and Its Significance for Fattening." Yerevan, 1956. 24 pp; 1 sheet of tables (Min of Agriculture USSR, Yerevan Zooveterinary Inst), 130 copies (KL, 48-57, 108)

USSR/Human and Animal Physiology. Blood. Formed Elements of Blood. T-4

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55449.

Author : Khil'kevich, N.M.
Inst : North Osetia Institute of Agriculture.
Title : The Leukocyte Count in Milk and the Significance of this Method for the Diagnosis of Mastitis in Cows.

Orig Pub: Tr. Severo-Osetinsk. s.-kh. in-ta, 1956, 17, 305-312.

Abstract: Milk was poured into a mixer until the 0.5 mark was reached. Then, the Giemsa solution (5 drops in 1 ml of distilled water) was added until the mark of 11 was reached, or a mixture of equal amounts of the following solutions was used: tripanic blue (0.1 gr in 200 ml of distilled water) and eosin (0.1 gr in 200 ml of

Card : 1/3

USSR/Human and Animal Physiology. Blood. Formed Elements of Blood. T-4

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55449.

distilled water). The leukocytes (L)were counted in the chamber of Goryayev. The tests were performed on 32 healthy cows, on 36 cows with acute mastitis, and on 31 cows with chronic mastitis (M). Up to 382 L per 1 mm3 were counted in the milk of healthy cows (here, lymphocytes predominated). 15,000-25,000 and more L per 1 mm3 were counted in the milk taken from infected parts of the udder when acute, especially purulent M was present. In the presence of fibrinous M, 12,000-22,000 L per 1 mm3 and more were counted, at the presence of serous M the L count per 1 mm3 was 2,800-11,000, and at the presence of catarrhal M, the count amounted to 4,000-16,000 L per 1 mm3.

Card : 2/3

KHIL'KEVICH N. M.

USSR / Farm Animals. Small Hornod Stock. Q-2

Abs Jour: Rof Zhur-Biol., No 23, 1958, 105693.

Author : Khil'kovich, N. M.
Inst : North Ossotia Agricultural Institute.
Titlo : Topographic Anatomy of the Soft Abdominal Wall of Shoop.

Orig Pub: Tr. Sov.-Osotinsk. s.-kh in-ta, 1957, 19, 253-268.

Abstract: Tho experiments carried out on 26 shoop from six months to eight years old, belonging to the breods of Soviet Morino, Ossotian, Bozakh and hybrids Ossotian x Soviet Merino, and performed partly by means of the perfusion of blood vessels, showed that the soft abdominal wall (SAW) of shoop is well dovoloped. Botwoon all the layers of SAW thore is a porous collular tissue which

Card 2/2

KHIL'KEVICH, N.M., dotsent

Use of phytoncides in skin diseases of the udder in cows.
Veterinariia 40 no.7:49-51 Jl '63. (MIRA 16:8)

1. Severo-Osetinskiy sel'skokhozyaystvennyy institut.
(Phytoncides) (Udder--Diseases)

KHIL'KEVICH, N.M., dotsent

There should be only one concept concerning sterility.
Veterinariia 41 no.1:83-87 Ja '64. (MIRA 17:3)

1. Severo-Osetinskiy sel'skokhozyaystvennyy institut.

KHIL'KEVICH, N.M., dotsent; TANCHUGIN, Yu.V., vet [illegible]

Treating mastitis in cows. Veterinariia 41 no.5:85-86 My '64.
(MIRA 18:3)

1. Severo-Osetinskiy sel'skokhozyaystvennyy institut (for Khil'kevich). 2. Molokovskaya veterinarnaya lechebnitsa, Krasnokholmskogo rayona, Kalininskoy oblasti (for Tanchugin).

KHIL'KIN, A.M.

DOBROVA, N.B., kand.med.nauk (Moskva, K-9, Sobinovskiy per., d.6, kv.14); KONSTANTINOV, B.A., student V kursa; KHIL'KIN, A.M., student V kursa

Experimental plastic surgery of the aorta with a polyvinyl alcohol prosthesis. [with summary in English]. Vest.khir. 79 no.8:86-90 Ag '57. (MIRA 10:10)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. prof. V.V.Kovanov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova.

(AORTA, transpl.
polyvinyl sponge graft in dogs)
(VINYL COMPOUNDS
polyvinyl sponge graft in surg. of aorta in dogs)

MIKAYELYAN, A.L.; KHIL'KIN, A.M.

Surgical treatment of aortic valve insufficiency; review of the literature. Eksp.khir. 4 no.3:50-59 My-Je '59. (MIRA 12:8)

1. Iz kafedry grudnoy khirurgii i anesteziologii (zav. - prof.Ye.N.Meshalkin) TSentral'nogo instituta usovershenstvovaniya vrachey i kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - prof.V.V.Kovanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

(AORTIC VALVE, dis.
insuff., surg., review (Rus))

DOBROVA, N.B., kand. med. nauk (Moskva, K-9, Sobinovskiy per. d.6, kv. 14)
KONSTANTINOV, B.A.; KHIL'KIN, A.M.

Prophylaxis and treatment of cardiac complications in surgery of the heart and large vessels under hypothermia. Vest. khir. 82 no.5: 90-94 My '59. (MIRA 12:7)

1. Iz kafedry operativnoy khirurgii (zav. - prof. V.V. Kovanov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M. Sechenova.
(HEART--SURGERY)

SOLOV'YEV, G.M., starshiy nauchnyy sotrudnik; SHUMAKOV, V.I., kand.med. nauk; KHIL'KIN, A.M., aspirant

Method for longitudinal sternotomy in approaching the heart. Vest.khir. '86 no.3:38-43 Mr '61. (MIRA 14:3)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. - prof. B.V. Petrovskiy) i kafedry operativnoy khirurgii (zav. - prof. V.V. Kovanov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M. Sechenova.
(HEART--SURGERY) (STERNUM--SURGERY)

KHIL'KIN, A. M. (Moskva, 2-ya Cheremushkinskaya ul., d. 17, korp. 1, kv. 51); KHUDYAKOVA, M. I.

Surgical anatomy of the aortic valve. Grud. khir. no.5:3-7 '61. (MIRA 15:2)

1. Kafedra operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V. V. Kovanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M. Sechenova.

(AORTIC VALVE)

KHIL'KIN, A.M. (Moskva, 2-ya Cheremushkinskaya ul., d.9, kv.51); LEMENEV, V.L.

Topographical anatomical approaches in diseases of the aortic valves. Grud. khir. 2 no.4:15-19 Jl-Ag '60. (MIRA 15:6)

1. Iz kafedry operativnoy khirurgii I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova (zav. - prof. V.V. Kovanov) i khirurgicheskoy kliniki (zav. - prof. D.M. Grozdov) TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Bagdasarov).

(AORTIC VALVE--SURGERY)

KHIL'KIN, A.M.

New methodology of producing dosed chronic aortic insufficiency. Eksper. khir. i anest. 7 no.5:36-38 S-O '62.

(MIRA 17:10)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav.-prof. V.V. Kovanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

KHIL'KIN, A.M.

Plastic surgery for experimental aortic insufficiency; preliminary report. Trudy 1-go MMI 16:60-65'62. (MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V.Kovanov) Pervogo Moskovskogo ordena Lenina meditsinskogo instituta.
(AORTIC VALVE--SURGERY) (SURGERY, PLASTIC)

KHIL'KIN, A.M.; KHOREVSKIY, V.P.

Arteriopiezogram in experimental aortal insufficiency and after its correction. Trudy 1-go MMI 16:66-71'62.
(MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V.Kovanov) Pervogo Moskovskogo ordena Lenina meditsinskogo instituta.
(AORTIC VALVE—DISEASES) (PULSE)

DOBROVA, N.B.; KONSTANTINOV, B.A.; KHIL'KIN, A.M.

Experimental use of a cardiopulmonary preparation in surgery for the replacement of the ascending aorta and the arch. Trudy 1-go MMI 16:80-85'62. (MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V.Kovanov) Pervogo Moskovskogo ordena Lenina
(AORTA--SURGERY) (SURGERY,PLASTIC)

DOBROVA, N.B.; KONSTANTINOV, B.A.; KHIL'KIN, A.M.

Method of switching arteries and temporary chunting in surgery for the replacement of the aortal arch in an experiment. Trudy 1-go MMI 16:72-79'62. (MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V.Kovanov) Pervogo Moskovskogo otdena Lenina meditsinskogo instituta.
(ARTERIES—SURGERY)

KOVANOV, V.V.; KHIL'KIN, A.M.

Plastic surgery in experimental aortic insufficiency. Eksper. khir. i anest. 8 no.3:34-40 My-Je '63 (MIRA 17:1)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii I Moskovskogo ordena Lenina meditsinskogo instituta.

KOVANOV, V.V.; PAVLENKO, S.M.; MEDELYANOVSKIY, A.N.; BOGDANOVA, Ye.V.; KISELEV, O.I.; KHIL'KIN, A.M.; FAL'KOVSKIY, G.A.

Method of phasic control of the blood circulation. Trudy po nov. app. i metod. no.1:86-92 '63 (MIRA 16:12)

FEL'DMAN, S.B.; MEYERSON, F.Z.; MARKOVSKAYA, G.I.; SHENDEROV, S.M.; KHIL'KIN, A.M.

Comparative studies on the duration of systolic phases and intracardiac hemodynamics in progressive experimental aortic diseases. Kardiologiia 5 no.2:28-31 Mr-Ap '65. (MIRA 18:7)

1. Propedevticheskaya terapevticheskaya klinika (zav. - deystvitel'nyy chlen AMN SSSR prof. V.Kh.Vasilenko) I Moskovskogo meditsinskogo instituta imeni I.M.Sechenova i laboratoriya fiziologii i patologii serdtsa Instituta normal'noy i patologicheskoy fiziologii (direktor - deystvitel'nyy chlen AMN SSSR prof. V.V.Parin) AMN SSSR.

KHIL'KIN, A.M.; DRONOV, A.F.; SHEKHTER, A.B.; KUT'IN, V.A.; ISTRANOV, L.P.; KASPARYANTS, S.A.

Use of semibiologic prostheses in vascular surgery. Report No.1. Eksper. khir. i anest. no.1:26-30 '65. (MIRA 18:11)

1. I Moskovskiy ordena Lenina meditsinskiy institut imeni I.M. Sechenova (direktor - deystvitel'nyy chlen AMN SSSR prof. V.V. Kovanov), Tekhnologicheskiy institut legkoy promyshlennosti (direktor - prof. I.P. Strakhov), Vsesoyuznyy nauchno-issledovatel'skiy institut kozhevennoy promyshlennosti (direktor - B.D. Breyev), Moskva.

POGREBITSKIY, R.D. [Pohrebyts'kyi, R.D.], insh., KHAZANET, L.L., insh.; KHIL'KO, A.V. [Khyl'ko, A.V.], insh.

BSM-1,5 bulldozer-scraper. Mekh. sil'. hosp. 11 no.11:27-28 N '60. (MIRA 13:11)

(Farm equipment)

KHIL'KO, B.

Working with raw meat products. Obshchestv.pit. no.7:30 Jl '60.
(MIRA 13:8)

1. Glavnyy bukhgalter Dnepropetrovskogo tresta stolovykh.
(Dnepropetrovsk—Restaurants, lunchrooms, etc.)

KHIL'KO, D.R.; OSTAPENKO, M.M. (Stalinskaya oblast')

Treatment of durine in horses. Veterinariia 36 no.2:40 F '59.
(MIRA 12:2)

1. Glavnyy vetvrach Konstantinovskogo rayona (for Khil'ko). 2. Zaveduyushchiy Drushkovskoy gorvetlechebnitsey (for Ostapenko).
(Dourine)

SOV/58-59-5-11624

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 243 (USSR)

AUTHOR: Khil'ko, G.I.

TITLE: Electrooptical Properties of Colloids

PERIODICAL: Sb. rabot stud. nauchn. o-va. Leningr. in-t tochnoy mekhan. i optiki, 1958, Nr 35, pp 50 - 56

ABSTRACT: The author investigates optical anisotropy in solutions of lyophobic colloids the molecules of which are strong dipoles. When a Π -pulsed electric field is applied to a vessel containing such a solution, polarized light passing through this vessel is intensity-modulated with the frequency of the change in the Π -pulses. The modulation of the light is recorded on an oscillograph. The author determines the geometrical position of the axis of greatest absorption for nonspherical molecules by measuring the dichroism in laminar flow.

L.D. Rozenshteyn

Card 1/1

TOLSTOY, N.A.; SPARTAKOV, A.A.; KHIL'KO, G.I.

Electrooptical properties of lyophobic colloids. Part 1: Statement of the problem, principal methods and results. Koll. zhur. 22 no. 6:705-716 N-D '60. (MIRA 13:12)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta, Kafedra fiziki.
(Colloids--Optical properties)

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S/181/62/004/011/018/049
B104/B102

AUTHORS: Tolstoy, N. A., Khil'ko, G. I., Ryskin, A. I., and Trusov, A. A.

TITLE: The relation between the luminescence and photoelectric properties in a ZnS-Mn phosphor

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3177 - 3184

TEXT: The object here is to establish quantitative and kinetic relations between photoelectric aspects and the luminescence of the photo-semiconduction mechanism in the ZnS-Mn phosphor, which has the property of scintillative deexcitation of luminescence. ZnS-Mn (10^{-3} g/g) placed in a capacitor is excited by two successive light flashes from two flash lamps positioned in front of a concave mirror. The interval between the light pulses is varied automatically from 0.1 to 10 sec. Intervals greater than 10 sec are regulated by hand. The first ultra-violet light pulse produces in the capacitor a current pulse corresponding to the motion of electrons in the direction of the incident beam. The second yellowish-green light pulse produces a signal whose amplitude depends on the time interval $t_{dark} \equiv t_d$ between the two light pulses. It reaches a maximum for a certain time

Card (1/3)

The relation between the luminescence...

interval t_{max}. t_{max} increases rapidly with decreasing temperature; for $t_{max} \to \infty$ the signal amplitude becomes zero. For $t_d \ll t_{max}$ the signal excited by the second pulse has opposite sign to that excited by the first light pulse. With increasing t_d ($t_d \ll t_{max}$) the signal of the second pulse becomes negative and goes through a maximum. The amplitude of the signal of the second light pulse is proportional to the light pulse but is independent of the ultra-violet light impulse. The signal of the second light impulse arises from the density gradient of the carriers localized in the excited state. The signs of the signals are the same for both light pulses. If, in the interval between the light pulses, infra-red light falls on the phosphor, t_{max} becomes shorter. Further, t_{max} depends on T in practically the same way as the scintillative deexcitation of the red luminescence band of this phosphor. Both effects are interpreted as being due to the relocalization of the holes from the centers of the blue luminescence to those of the red. The depth of the "blue" hole levels is 0.67 ev and their frequency factor is $\simeq 0.7 \cdot 10^{13}$ sec^{-1}. There are 4 figures.

Card 2/3

The relation between the luminescence...

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova, Leningrad (State Optical Institute imeni S. I. Vavilov, Leningrad)

SUBMITTED: June 21, 1962

Card 3/3

RYSKIN, A.I.; KHIL'KO, G.I.; MAKSAKOV, B.I.; DUBENSKIY, K.K.

Absorption spectrum of Mn^{2+} ions in ZnS single crystals. Opt. i spektr. 16 no.2:274-278 F '64. (MIRA 17:4)

TOLSTOY, N.A.; KHIL'KO, G.I.; RYSKIN, A.I.; TRUSOV, A.A.

Relation between luminescent and photoelectric phenomena in ZnS-Mn. Fiz. tver. tela 4 no.11:3177-3184 N '62. (MIRA 15:12)

1. Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova, Leningrad.
(Luminescent substances)
(Photoelectricity)

RYSKIN, A.I.; TOLSTOY, N.A.; KHIL'KO, G.I.

Flashlike rise of luminescence. Part 4. Opt. i spektr. 15 no.5: 659-666 N '63. (MIRA 16:12)

ACCESSION NR: AP4020929 S/0051/64/016/002/0274/0278

AUTHOR: Ry*skin, A.I.; Khil'ko, G.I.; Maksakov, B.I.; Dubenskiy, K.K.

TITLE: Absorption spectra of the divalent Mn ion in ZnS single crystals

SOURCE: Optika i spektroskopiya, v.16, no.2, 1964, 274-278

TOPIC TAGS: manganese ion absorption, manganese in zinc sulfide, manganese activated zinc sulfide, manganese 2+, zinc sulfide

ABSTRACT: The absorption spectrum of Mn^{2+} in different hosts has been studied by several investigators, but mostly with the material in the polycrystalline state. In view of advances in techniques for growing large ZnS crystals and development of crystal field theory, it was deemed worthwhile to undertake the present investigation of the absorption bands of Mn^{2+} in ZnS single crystals. It is possible that manganese also enters the sulfide lattice in trivalent form, but this is questionable and so far unproved. The Mn activated ZnS crystals were grown from melts under pressure (argon at 150 atm), using crucibles from 10 to 30 mm in diameter. The crucible displacement rate was 8 mm/hour. The initial material was luminescence pure ZnS heated for 6-7 hours in a stream of purified argon. One of the investigated

Card 1/2

ACCESSION NR: AP4020929

crystals was prepared with $ZnCl_2$ flux and contained 2.4 atomic percent Mn (introduced in the form of $MnSO_4$); another crystal was grown with $MnCl_2$ flux and contained 3.8 atomic percent Mn. The intrinsic (non-Mn) absorption of the former extended further into the long wavelength region, probably due to the presence of excess zinc. The spectra of the crystals were recorded at room temperature by means of an SF-4 spectrophotometer and at liquid nitrogen (77°K) temperature and liquid helium (4.2°K) by means of a quartz optics Q-12 spectrograph. The low temperature spectra were recorded in polarized light. Traces of the absorption spectra at the three temperatures and of the structure of the 21 645 cm^{-1} band at 4.2°K for E parallel and perpendicular to the c axis are reproduced. The structure of the spectra of the two above mentioned crystals is rather similar. Five bands are identified, i.e., associated with transitions between the Mn^{2+} levels in a field of cubic symmetry. The structure of the absorption bands is discussed briefly. Orig.art.has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 20Mar63 DATE ACQ: 02Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 002 OTHER: 015

Card 2/2

L 11626-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5025307 SOURCE CODE: UR/0051/65/019/004/0635/0637

AUTHOR: Dubenskiy, K.K.; Karlss, Ya. E.; Ryskin, A.I.; Feofilov, P.P.; Khil'ko, G.I.

ORG: none

TITLE: Determination of the effective cross section of collisions of the second kind between mercury and zinc atoms

SOURCE: Optika i spektroskopiya, v. 19, no. 4, 1965, 635-637

TOPIC TAGS: collision cross section, mercury, zinc, fluorescence spectrum

ABSTRACT: The collision cross section was determined at 736K at high values of ΔE (the energy difference between the levels of the colliding atoms) for the Hg-Zn pair with an energy difference in levels Hg 6 $^3P_1$ and Zn 4 $^3P_1$ of 6911 cm^{-1}. The determination was based on the relative intensity of sensitized fluorescence of Zn 3076 Å (4 $^3P_1$ - 4 $^1S_0$) and Hg 2537 Å (6 $^3P_1$ - 6 $^1S_0$). The effective collision cross section was determined from the formula

$$\langle \sigma v \rangle = \frac{I_{Zn}}{I_{Hg}} \frac{A_{Zn}}{N_{Hg}} \frac{v_{Hg}^2}{v_{Zn}^2} \frac{\int_{-\infty}^{+\infty} \left[1 - e^{-k_{Hg}(v)l}\right] dv}{\int_{-\infty}^{+\infty} \left[1 - e^{-k_{Zn}(v)l}\right] dv}, \quad (1)$$

Card 1/2

UDC: 539.186.3:546.49:546.47

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ACC NR: AP5025307

where $\frac{I_{Zn}}{I_{Hg}}$ is the relative intensity of the fluorescence lines Zn 3076 Å and Hg 2537 Å; A_{Zn} is the probability of a spontaneous transition for zinc; N_{Hg} is the concentration of mercury atoms in the container; ν_{Hg}, ν_{Zn} are the frequencies of the fluorescence lines of mercury and zinc; l is the thickness of the luminescent layer. The value of $\langle \sigma v \rangle$ was found to be 5×10^{14} cm^3 sec^{-1}. If in order to evaluate σ it is assumed that v is the most probable velocity of the relative motion of zinc and mercury atoms, then $\sigma \sim 1 \times 10^{-18}$ cm^2. Orig. art. has: 2 formulas.

SUB CODE: 07, 20 / SUBM DATE: 26Dec64 / ORIG REF: 001 / OTH REF: 007

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TSYGODA, I.M.; KAZAKOV, V.N.; KOLESNIKOV, N.A.; BRYUKHANOV, N.G.; BURBA, A.A.; SADYKOV, V.I.; PIGAREV, A.D.; Prinimali uchastiye: PECHENKIN, S.N.; GLAZACHEV, G.M.; KHVESYUK, F.I.; KODINTSEV, A.V.; YERGALIYEV, E.Ye.; YERMAKOVA, Z.S.; NOVAK, I.V.; KHIL'KO, I.Ye.; LYASHEVSKIY, R.A.; PROKHOROV, A.I.; CHERTOVA, N.G.; URUBKO, V.N.; KUGUCHEV, V.V.

Industrial testing of a flow sheet for the processing of Altai complex metal ores along the lines of the flow sheet used at the Mednogorskii Combine. TSvet. met. 36 no.12:12-15 D '63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy gorno-metallurgicheskiy institut tsvetnykh metallov (for Pechenkin, Glazachev, Khvesyuk, Kodintsev). 2. Irtyshskiy polimetallicheskiy kombinat (for Yergaliyev, Yermakova). 3. Mednogorskiy medno-sernyy kombinat (for Novak, Khil'ko, Lyashevskiy, Prokhorov, Chertova, Urubko, Kuguchev).

1. BURYASHINA, V. - KHILKO, M.

2. USSR (600)

4. Baking

7. Perfection of work methods and improvement of technical processes. Khol. tekh. 29 no. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

KHIL'KO, M.F., inzh.

Leveling the basic area of an earth railroad bed in morainic soil. Transp. stroi. 12 no.4:13-14 Ap '62. (MIRA 15:5)
(Railroads--Earthwork)

KHIL'KO, M.F., inzh.

Organization of the work of the head station in a wooded and swampy locality. Transp. stroi. 12 no.11:14 N '62. (MIRA 15:11)
(Railroads—Construction)

ANTONOV, G.I.; MINKOVICH, B.D.; SHVARTSER, M.A.; SHAKHOV, G.S.; SEMENOV, I.N.; KHIL'KO, M.M.; MOLCHANOVA, M.I.

Production and service testing of kilned and non-kilned short forsterite bricks. Ogneupory 25 no.6:244-251 '60. (MIRA 13:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov, Minkovich). 2. Panteleymonovskiy ogneupornyy zavod im. Kirova (for Shvartser, Shakhov, Semenov). 3. Makeyevskiy metallurgicheskiy zavod im. Kirova (for Khil'ko, Molchanova).
(Blast furnaces)
(Firebrick)

ZHUKOV, A.I., inzh.; KHIL'KO, M.M., inzh.; MERSHCHIY, N.P.; SHKLYAR, M.S.; SLEZ, L.G.

Practice of firing open-hearth furnaces with natural gas by the method of self-carburation. Stal' 21 no. 4:307-311 Ap '61. (MIRA 14:4)
(Open-hearth furnaces--Combustion) (Gas, Natural)

KHIL'KO, M.M.; SHKLYAR, M.S.

Firing open-hearth furnaces with a mixture of coke and natural gases. Metallurg 6 no.7:11-13 Jl '61. (MIRA 14:6)

1. Iz Informatsionnogo listka TSentral'nogo byuro tekhnicheskoy informatsii Stalinskogo sovnarkhoza.
(Open-hearth furnaces) (Gas as fuel)

MIROSHNICHENKO, A.N.; VINOKUR, S.B.; ANTONOV, G.I.; MINKOVICH, B.D.; MOLCHANOVA, M.M.; FAYNERMAN, B.A.; KHIL'KO, M.M.

Magnesite brick for the checkerwork of open-hearth furnace regenerators. Ogneupory 25 no.5:197-207 '60. (MIRA 14:5)
(Firebrick) (Open-hearth furnaces)

KULIK, A.I.; KARMANOVA, T.S.; YASTREMSKIY, I.S.; KHIL'KO, M.M.; PAPIN, T.I.

Application of paraffin to unfired magnesite nozzles and liners. Ogneupory 26 no.3:113-114 '61. (MIRA 14:4)

1. Chasov-Yarskiy kombinat ogneuporynykh izdeliy (for Kulik, Karmanova, Yastremskiy). 2. Makeyevskiy metallurgicheskiy zavod im. Kirova (for Khil'ko). 3. Konstantinovskiy metallurgicheskiy zavod im. Frunze (for Papin).

(Waterproofing) (Foundries--Equipment and supplies)

KHIL'KO, M.M.; ANTONOV, G.I.

Use of forsterite checkers in high capacity open-hearth furnaces operating with oxygen. Ogneupory 27 no.3:141 '62. (MIRA 15:3)

1. Makeyevskiy metallurgicheskiy zavod imeni Kirova (for Khil'ko).
2. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov).
(Open-hearth furnaces) (Forsterite)

ZHUKOV, A.I.; KHIL'KO, M.M.; SHKLYAR, M.S.; KAZANTSEV, Ye.I. Prinimali uchastiye: BLASHCHUK, N.M., inzh.; YARMYSH, V.A., inzh.; PARKHOMENKO, D.M., inzh.; BULI, V.G., inzh.; BIDENKO, R.V., inzh.; PASIKOV, N.V., inzh.; ZEMLYANOY, N.G., inzh.; TARASENKO, A.A., inzh.

Firing open-hearth furnaces with a mixture of cold coke and natural gases. Stal' 21 no.12:1068-1070 D '61. (MIRA 14:12)

(Open-hearth furnaces--Equipment and supplies)
(Gas as fuel)

KHIL'KO, M.M., inzh.; ANTONOV, G.I., inzh.

Results of using forsterite checkers in open-hearth furnaces operating with oxygen. Met. i gornorud. prom. no.6:31-34 N-D '62. (MIRA 17:8)

1. Makeyevskiy metallurgicheskiy zavod im. Kirova (for Khil'ko).
2. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Antonov).

ANTONOV, G.I.; KHIL'KO, M.M.

Use of unfired checker refractories. Met. i gornorud. prom. no.3:37-40 My-Je '62. (MIRA 15:9)

1. Ukrainskiy institut ogneuporov (for Antonov). 2. Metallurgicheskiy zavod imeni Kirova (for Khil'ko).
(Refractory materials)
(Open-hearth furnaces--Design and construction)

VECHER, N.A., inzh.; GERMAIDZE, G. Ye., inzh.; PANFILOV, M.I., dotsent; KHIL'KO, M.M., inzh.; MERSHCHIY, N.P., inzh.; ALFEROV, K.S., inzh.; ANTONOV, S.P.; DIKSHTEYN, Ye.I.; YAGNYUK, M.I.; HELIKOV, K.N.; GONCHAREYSKIY, Ya.A.; TRIFONOV, A.G.; SEDACH, G.A.

"Open-hearth plants with large-capacity furnaces" by D.A. Smoliarenko, N.I. Efanova. Reviewed by N.A. Vecher and others. Stal' 21 no.2:125-126 F '61. (MIRA 14:3)

1. Sverdlovskiy sovet narodnogo khozyaystva (for Vecher, Germaidze, Panfilov).

(Open-hearth furnace--Design and construction)
(Smoliarenko, D.A.) (Efanova, N.I.)

KHIL'KO, M.M.; MOLCHANOVA, M.I.; MACHKOVSKIY, V.A.

Making and operating a rammed bottom in open-hearth furnaces. Met.i gornorud.prom. no.5:78-80 S-O '62. (MIRA 16:1)

1. Makeyevskiy metallurgicheskiy zavod imeni Kirova.
(Open-hearth furnaces--Maintenance and repair)

KHIL'KO, M.M.; MOLCHANOVA, M.I.; KOTIK, P.L.; LYUDVINSKIY, A.I.; KOREN, L.N.; KHARCHENKO, I.G.

Crown firebrick of a finely ground mixture of magnesite and chromite. Ogneupory 28 no.6:256-258 '63. (MIRA 16:6)

1. Makeyevskiy metallurgicheskiy zavod im. Korova (for Khil'ko, Molchanova). 2. Nikitovskiy dolomitovyy kombinat (for Kotik). 3. Dnepropetrovskiy metallurgicheskiy institut (for Lyudvinskiy, Koren, Kharchenko).

(Firebrick)

POKOTILO, Ye.P.; KHIL'KO, M.M.

Redesign of open-hearth furnaces. Vop. proizv. stali no.9: 46-50 '63. (MIRA 16:9)

ANTONOV, G.I.; KOSOGOLOV, V.V.; NEDOSVITIY, V.P.; VINOGRADOV, N.I.; KHIL'KO, M.M.; MOLCHANOVA, M.I.

New design of ribbed arches with reinforced supports. Metallurg 9 no.2:18-21 F '64. (MIRA 17:3)

1. Ukrainskiy institut ogneuporov i Makeyevskiy metallurgicheskiy zavod.

LYUDVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; MISHCHENKO, V.S.; FROLOVA, A.I.; KOTIK, P.L.; KHIL'KO, M.M.; MOLCHANOVA, M.I.; VINOGRADOV, N.M.; PYLAYEV, S.V.; BEYGUL, Ye.I.; ROKHLIN, N.A.; MASYUKOV, N.T.; BONDAR', V.I.

In the country's steelmaking plants. Metallurg 9 no.9: 16-19 S '64. (MIRA 17:10)

1. Saldinskiy metallurgicheskiy zavod (for Pylayev).
2. Zavod im. Dzerzhinskogo (for Beygul, Rokhlin).
3. Yenakiyevskiy metallurgicheskiy zavod (for Masyukov, Bondar').